

Indirect estimation of quality in academic and R&D websites

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aoir 4.0 : broadening the band

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[Academic sector in the Web]

- **Universities' websites can reflect the output of academic and research activities better than traditional paper publications**
 - The future of informal scholarly communication
- **The audience of the Web is far larger than that of other means of scientific communication**
 - Millions instead of hundreds
- **Hypertext nature of the Web allows the discovery of hidden patterns**
 - Cyber-science-techno-econo-metrics

[Current situation]

- **Underperforming role of the web**
 - Informal communication not taking off
 - Academic representation only for information purposes
 - Personal pages scarce and not very helpful
- **Psychological, economic and academic barriers**
 - Evaluation not considering web publication
 - Open or free sources of information under suspicion
 - Scientists not as contributor to universal knowledge, more salary oriented
 - Technophobia
- **Quality**
 - Maintenance under minimum
 - Coverage not exhaustive
 - Not access to raw data

[Hypothesis to explore]

- **Web sites are increasingly complex**
 - Great effort to organise information
 - Webmaster role difficult to assume
 - Technical requirements
 - Periodicity extrenous
- **Time consuming**
- **Protection against plagiarism not guaranteed**
- **Not enough information about usage**
- **Evaluation of quality**
- **Economic constraints**
- **Internal policy constrains**

[Sample]

- 111 institutions and their web institutional domains randomly selected from ISI Essential Indicators ranking
 - 28 countries
 - US (27), JP (11), IT (9), FR (9) & UK (8) best represented
- Quantitative data obtained
 - Articles & citations in ISI journal (XXXX-2002)
 - Size y visibility according search engines
 - whole institutional domain
 - www. domain
 - Number of subdomains (including www.)
 - Absolute values obtained by crawling websites

[Problems from search engines]

ISI		SEARCH ENGINES (09-03). LARGEST IN BOLD					
RANK	NAME	DOMAIN	GOO	ATW	AV	TEO	MSN
30	KYOTO UNIV	kyoto-u.ac.jp	1.620.000	233.992	16.979	731.300	3.120
10	YALE UNIV	yale.edu	252.000	163.330	35.266	840.100	81.604
20	CORNELL UNIV	cornell.edu	656.000	341.682	757.018	653.500	202.869
90	UNIV ALBERTA	ualberta.ca	351.000	163.568	554.368	338.500	261.151
1420	NAGAOKA UNIV TECHNOL	nagaokaut.ac.jp	422.000	42.081	2.512	58.200	174
190	BROOKHAVEN NATL LAB	bnl.gov	421.000	67.009	20.831	140.300	18.104
560	UNIV TWENTE	utwente.nl	351.000	135.828	14.723	145.500	41.697
180	TOKYO INST TECHNOL	titech.ac.jp	118.000	72.665	43.022	325.800	1.655
2170	INRIA	inria.fr	311.000	83.691	178.111	87.000	123.808
200	NIMH	nimh.nih.gov	13.300	9.733	289.533	8.510	3.141
160	UNIV CONNECTICUT	uconn.edu	107.000	255.080	95.741	98.900	52.412
70	UNIV HEIDELBERG	uni-heidelberg.de	217.000	91.946	138.964	145.100	33.429
530	RENSSELAER POLYTECH INST	rpi.edu	136.000	86.520	214.962	104.100	41.558
220	IST NAZL FIS NUCL	infn.it	208.000	94.217	84.511	76.800	158.367
720	NO ILLINOIS UNIV	niu.edu	129.000	125.342	188.113	169.000	44.680

[Sites diversity]

ISI RANK	NAME	WWW website		DOMAIN		Subdomains
		pages			pages	
20	CORNELL UNIV	707	0,09%	<i>cornell.edu</i>	757.018	13.069
560	UNIV TWENTE	23.400	6,67%	<i>utwente.nl</i>	351.000	9.733
160	UNIV CONNECTICUT	78	0,03%	<i>uconn.edu</i>	255.080	8.595
50	UNIV ALABAMA	4.006	2,46%	<i>ua.edu</i>	163.000	7.535
220	IST NAZL FIS NUCL	2.084	1,00%	<i>infn.it</i>	208.000	6.044
30	KYOTO UNIV	5.620	0,35%	<i>kyoto-u.ac.jp</i>	1.620.000	673
180	TOKYO INST TECHNOL	1.600	0,49%	<i>titech.ac.jp</i>	325.800	304
90	UNIV ALBERTA	142.000	25,61%	<i>ualberta.ca</i>	554.368	250
690	JET PROP LAB	16.600	12,21%	<i>jpl.nasa.gov</i>	136.000	245
1310	UNIV POLITECN MADRID	9.000	8,11%	<i>upm.es</i>	111.000	235
40	NORTHWESTERN UNIV	38.200	29,84%	<i>northwestern.edu</i>	128.000	225
150	WAYNE STATE UNIV	55.500	46,25%	<i>wayne.edu</i>	120.000	217
10	YALE UNIV	110.000	13,09%	<i>yale.edu</i>	840.100	215
530	RENSSELAER POLYTECH INST	93.000	43,26%	<i>rpi.edu</i>	214.962	177
100	MCMMASTER UNIV	16.500	13,87%	<i>mcmaster.ca</i>	119.000	154
80	UNIV MILAN	11.700	12,84%	<i>unimi.it</i>	91.100	148
580	PAUL SCHERRER INST	493	0,59%	<i>psi.ch</i>	83.800	147
2080	NATL CHUNG CHENG UNIV	4.060	2,71%	<i>ccu.edu.tw</i>	150.000	141

[Thanks!]

¿Questions?



WISER 

Web Indicators for Science, Technology & Innovation Research

www.webindicators.org